

APPENDIX A:
Banding Data

Band numbers, color-marking on right and left legs, and radio-transmitter frequencies for burrowing owls marked during 1994 on our study area located approximately 4 km south of Kuna, Ada County, Idaho.

Band Number	Date	Age	Sex	Right	Left	Radio (MHz)
1204-43601	15 May	AHY	M	R,AL	R,R	151.870
1204-43602	15 May	AHY	M	R,AL	R,B	
1204-43603	17 May	AHY	F	R,AL	R,G	
1204-43604	17 May	AHY	F	R,AL	R,Y	
1204-43605	18 May	AHY	F	R,AL	R,W	
1204-43606	18 May	AHY	F	R,AL	R,P	151.336
1204-43607	19 May	AHY	F	R,AL	B,R	
1204-43608	19 May	AHY	F	R,AL	B,B	
1204-43609	19 May	AHY	M	R,AL	B,G	
1204-43610	20 May	AHY	F	R,AL	B,Y	
1204-43611	20 May	AHY	M	R,AL	B,W	151.852
1204-43612	22 May	AHY	F	R,AL	B,P	151.721
1204-43613	22 May	AHY	F	R,AL	G,R	
1204-43614	24 May	AHY	F	R,AL	G,B	
1204-43615	24 May	AHY	F	R,AL	G,G	
1204-43616	24 May	L	U	R,AL	G,Y	
1204-43617	24 May	L	U	R,AL	G,W	151.346
1204-43618	24 May	AHY	F	R,AL	G,P	
1204-43619	24 May	L	U	R,AL	Y,R	
1204-43620	26 May	AHY	F	R,AL	Y,B	
1204-43621	28 May	L	U	R,AL	Y,G	
1204-43622	28 May	L	U	R,AL	Y,Y	151.841
1204-43623	31 May	AHY	F	R,AL	Y,W	151.316
1204-43624	31 May	L	U	R,AL	Y,P	
1204-43625	1 June	AHY	F	R,AL	P,R	
1204-43626	1 June	L	U	R,AL	P,B	
1204-43627	1 June	L	U	R,AL	P,G	
1204-43628	1 June	L	U	R,AL	P,Y	151.762
1204-43629	2 June	L	U	R,AL	P,W	
1204-43630	2 June	AHY	M	R,AL	P,P	
1204-43631	2 June	L	U	R,AL	W,R	
1204-43632	2 June	L	U	R,AL	W,B	
1204-43633	3 June	L	U	R,AL	W,G	151.880
1204-43634	3 June	L	U	R,AL	W,Y	151.771
1204-43635	6 June	L	U	R,AL	W,W	
1204-43636	7 June	L	U	R,AL	W,P	

Band Number	Date	Age	Sex	Right	Left	Radio (MHz)
1204-43637	8 June	AHY	M	B,AL	R,R	151.731
1204-43638	8 June	L	U	B,AL	R,B	
1204-43639	8 June	L	U	B,AL	R,G	
1204-43640	8 June	L	U	B,AL	R,Y	
1204-43641	8 June	L	U	B,AL	R,W	
1204-43642	8 June	L	U	B,AL	R,P	151.870
1204-43643	8 June	L	U	B,AL	B,R	
1204-43644	9 June	AHY	F	B,AL	B,B	
1204-43645	10 June	L	U	B,AL	B,G	
1204-43646	10 June	L	U	B,AL	B,Y	
1204-43647	13 June	AHY	M	B,AL	B,W	151.819
1204-43648	18 June	L	U	B,AL	B,P	151.711
1204-43649	18 June	L	U	B,AL	G,R	151.810
1204-43650	26 June	L	U	B,AL	G,B	151.751
1204-43651	28 June	L	U	B,AL	G,G	
1204-43652	28 June	L	U	B,AL	G,Y	
1204-43653	29 June	L	U	B,AL	G,W	
1204-43654	29 June	L	U	B,AL	G,P	
1204-43655	29 June	L	U	B,AL	Y,R	151.781
1204-43656	29 June	L	U	B,AL	Y,B	
1204-43657	29 June	L	U	B,AL	Y,G	
1204-43658	29 June	L	U	B,AL	Y,Y	
1204-43659	11 July	L	U	B,AL	Y,W	
1204-43660	13 July	L	U	B,AL	Y,P	151.802
1204-43661	17 July	L	U	B,AL	W,R	151.721
1204-43662	18 July	L	U	B,AL	W,B	151.711
1204-43663	18 July	L	U	B,AL	W,G	151.316
1204-43664	20 July	L	U	B,AL	W,Y	151.762
1204-43665	21 July	L	U	B,AL	W,W	151.810
1204-43666	21 July	L	U	B,AL	W,P	151.810
1204-43667	31 July	L	U	B,AL	P,R	
1204-43668	31 July	L	U	B,AL	P,B	
1204-43669	1 August	L	U	B,AL	P,G	
1204-43670	1 August	L	U	B,AL	P,Y	
1204-43671	14 August	HY	U	B,AL	P,W	

Age: AHY = after hatching year; L = local; HY = hatching year

Sex: M = male; F = female; U = unknown

Color band: AL = aluminum; R = red; B = blue; G = green;

Y = yellow; W = white; P = pink

APPENDIX B:
Nest Habitat Data

NESTING HABITAT CHARACTERISTICS

Date: 6 June 1994

Location Name: DAIRY #1 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 16.0 cm
Height of mound: 3.0 cm
Compass direction of entrance: 2°
Distance to nearest burrow: 34.0 m
Distance to nearest occupied burrow: 491 m
Number of burrows within 10 m radius: 0
Distance to first satellite burrow: N/A
Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 15.0 cm
Average height within 2 m radius: 25.0 cm
Dominant plant species: *Bromus tectorum*
Vegetation type: a weedy fencerow bordered by a gravel road, a disturbed grassland and an alfalfa field

OTHER MEASUREMENTS

Distance to nearest perch: 1.0 m
Perch type: metal fencepost
Height of perch: 150.0 cm
Distance to nearest cultivated field: 9.0 m
Distance to nearest paved/gravel road: 0.7 m
Distance to nearest source of water: 8.0 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 21 June 1994

Location name: DAIRY #2 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 23.0 cm

Height of mound: 10.0 cm

Compass direction of entrance: 319°

Distance to nearest burrow: 3.35 m

Distance to nearest occupied burrow: 120.7 m

Number of burrows within 10 m radius: 8

Distance to first satellite burrow: 45.5 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 15.0 cm

Average height within 2 m radius: 30.0 cm

Dominant plant species: *Bromus tectorum*, *Artemisia tridentata*,
Sisymbrium spp.

Vegetation type: disturbed grassland

OTHER MEASUREMENTS

Distance to nearest perch: 3.65 m

Perch type: dead sagebrush (killed by fire)

Height of perch: 80.0 cm

Distance to nearest cultivated field: 105 m

Distance to nearest paved/gravel road: 83 m

Distance to nearest source of water: 103 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 21 June 1994

Location name: DAIRY #3 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 25.5 cm

Height of mound: 5.0 cm

Compass direction of entrance: 71°

Distance to nearest burrow: 30.0 m

Distance to nearest occupied burrow: 188.0 m

Number of burrows within 10 m radius: 0

Distance to first satellite burrow: 30.0 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 0.0 cm

Average height within 2 m radius: 0.0 cm

Dominant plant species: none

Vegetation type: mostly disturbed bare soil

OTHER MEASUREMENTS

Distance to nearest perch: 12.3 m

Perch type: gun shooting stand

Height of perch: 110.0 cm

Distance to nearest cultivated field: 1.0 m

Distance to nearest paved/gravel road: 0.5 m

Distance to nearest source of water: 247 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 21 June 1994

Location name: DAIRY #4 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 22.0 cm

Height of mound: 5.0 cm

Compass direction of entrance: 68°

Distance to nearest burrow: 21.0 m

Distance to nearest occupied burrow: 188.0 m

Number of burrows within 10 m radius: 0

Distance to first satellite burrow: N/A

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 0.0 cm

Average height within 2 m radius: 10.0 cm

Dominant plant species: none

Vegetation type: mostly disturbed bare soil

OTHER MEASUREMENTS

Distance to nearest perch: N/A

Perch type: N/A

Height of perch: N/A

Distance to nearest cultivated field: 1.0 m

Distance to nearest paved/gravel road: 0.5 m

Distance to nearest source of water: 59.0 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 21 June 1994

Location name: DAIRY #5 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 19.0 cm

Height of mound: 10.0 cm

Compass direction of entrance: 198°

Distance to nearest burrow: 5.8 m

Distance to nearest occupied burrow: 120.7 m

Number of burrows within 10 m radius: 11

Distance to first satellite burrow: N/A

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 15.0 cm

Average height within 2 m radius: 30.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp., *Artemisia tridentata*

Vegetation type: disturbed grassland

OTHER MEASUREMENTS

Distance to nearest perch: 8.9 m

Perch type: dead sagebrush (killed by fire)

Height of perch: 80.0 cm

Distance to nearest cultivated field: 183 m

Distance to nearest paved/gravel road: 163 m

Distance to nearest source of water: 181 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 10 June 1994

Location name: DAIRY #6 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 15.5 cm

Height of mound: 15.0 cm

Compass direction of entrance: 120°

Distance to nearest burrow: 28.4 m

Distance to nearest occupied burrow: 228 m

Number of burrows within 10 m radius: 0

Distance to first satellite burrow: 57.0 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 10.0 cm

Average height within 2 m radius: 23.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp., *Artemisia tridentata*

Vegetation type: disturbed grassland bordering dense sagebrush

OTHER MEASUREMENTS

Distance to nearest perch: N/A

Perch type: dead sagebrush (killed by fire)

Height of perch: N/A

Distance of nearest cultivated field: 169 m

Distance to nearest paved/grave/ road: 62 m

Distance to nearest source of water: 160 m (irrigation ditch)

NESTING HABITAT CHARACTERISTICS

Date: 16 June 1994

Location name: KUNA BUTTE #1 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 16.5 cm
Height of mound: 23.0 cm
Compass direction of entrance: 143°
Distance to nearest burrow: 6.5 m
Distance to nearest occupied burrow: 101.2 m
Number of burrows within 10 m radius: 13
Distance to first satellite burrow: N/A
Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 10.0 cm
Average height within 2 m radius: 35.0 cm
Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.
Vegetation type: grassland

OTHER MEASUREMENTS

Distance to nearest perch: 20 m
Perch type: large manure pile
Height of perch: 130 cm
Distance to nearest cultivated field: 51.0 m
Distance to nearest paved/gravel road: 46.3 m
Distance to nearest source of water: 46.3 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 16 June 1994

Location name: KUNA BUTTE #2 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 15.9 cm

Height of mound: 5.0 cm

Compass direction of entrance: 182°

Distance to nearest burrow: 21.4 m

Distance to nearest occupied burrow: 101.2 m

Number of burrows within 10 m radius: 1

Distance to first satellite burrow: 18.0 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 10.0 cm

Average height within 2 m radius: 20.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: grassland

OTHER MEASUREMENTS

Distance to nearest perch: 15.9 m

Perch type: metal fencepost

Height of perch: 145.5 cm

Distance to nearest cultivated field: 51.0 m

Distance to nearest paved/gravel road: 11.0 m

Distance to nearest source of water: 11.0 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 16 June 1994

Location name: KUNA BUTTE #3 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 21.0 cm

Height of mound: 12.5 cm

Compass direction of entrance: 47°

Distance to nearest burrow: 4.0 m

Distance to nearest occupied burrow: 222.0 m

Number of burrows within 10 m radius: 6

Distance to first satellite burrow: 7.3 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 12.0 cm

Average height within 2 m radius: 20.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: grassland

OTHER MEASUREMENTS

Distance to nearest perch: 5.5 m

Perch type: large rock

Height of perch: 35.0 cm

Distance to nearest cultivated field: 36.0 m

Distance to nearest paved/gravel road: 31.3 m

Distance to nearest source of water: 31.3 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 16 June 1994

Location name: KUNA BUTTE #4 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 21.0 cm

Height of mound: 7.6 cm

Compass direction of entrance: 126°

Distance to nearest burrow: 3.7 m

Distance to nearest occupied burrow: 222.0 m

Number of burrows within 10 m radius: 3

Distance to first satellite burrow: N/A

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 15.0 cm

Average height within 2 m radius: 30.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp., *Artemisia tridentata*

Vegetation type: grassland with scattered sagebrush

OTHER MEASUREMENTS

Distance to nearest perch: 0.8 m

Perch type: rock

Height of perch: 25.0 cm

Distance to nearest cultivated field: 37.0 m

Distance to nearest paved/grave/ road: 32.0 m

Distance to nearest source of water: 32.0 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 17 June 1994

Location name: KUNA BUTTE #5 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 16.0 cm

Height of mound: 15.0 cm

Compass direction of entrance: 108°

Distance to nearest burrow: 5.3 m

Distance to nearest occupied burrow: 104.0 m

Number of burrows within 10 m radius: 7

Distance to first satellite burrow: 10.3 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 10.0 cm

Average height within 2 m radius: 18.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: grassland

OTHER MEASUREMENTS

Distance to nearest perch: 8.2 m

Perch type: dead sagebrush (killed by fire)

Height of perch: 70.0 cm

Distance to nearest cultivated field: 155.0 m

Distance to nearest paved/gravel road: 95.0 m

Distance to nearest source of water: 155.0 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 17 June 1994

Location name: KUNA BUTTE #6 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 27.5 cm

Height of mound: 17.0 cm

Compass direction of entrance: 158°

Distance to nearest burrow: 2.4 m

Distance to nearest occupied burrow: 216 m

Number of burrows within 10 m radius: 10

Distance to first satellite burrow: 25 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 10.0 cm

Average height within 2 m radius: 15.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: grassland

OTHER MEASUREMENTS

Distance to nearest perch: 50 m

Perch type: dirt berm

Height of perch: 60.0 cm

Distance to nearest cultivated field: 321 m

Distance to nearest paved/gravel road: 95 m

Distance to nearest source of water: 321 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 17 August 1994

Location name: SWAN FALLS #1 (SUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 16.0 cm

Height of mound: 7.0 cm

Compass direction of entrance: 20°

Distance to nearest burrow: 34.0 m

Distance to nearest occupied burrow: 720 m

Number of burrows within 10 m radius: 0

Distance to first satellite burrow: 38 m

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 8.0 cm

Average height within 2 m radius: 15.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: fencerow (burned), grassland, sugarbeet field

OTHER MEASUREMENTS

Distance to nearest perch: 1.5 m

Perch type: metal fencepost

Height of perch: 130.0 cm

Distance to nearest cultivated field: 1.0 m

Distance to nearest paved/gravel road: 6.5 m

Distance to nearest source of water: 1.0 m (puddles from irrig.)

NESTING HABITAT CHARACTERISTICS

Date: 29 June 1994

Location name: IBP #1 (UNSUCCESSFUL)

BURROW MEASUREMENTS

Diameter of entrance: 15.0 cm

Height of mound: 15.0 cm

Compass direction of entrance: 311°

Distance to nearest burrow: 4.7 m

Distance to nearest occupied burrow: N/A

Number of burrows within 10 m radius: 3

Distance to first satellite burrow: N/A

Livestock manure at burrow entrance: YES

VEGETATION

Average height at burrow: 25.0 cm

Average height within 2 m radius: 25.0 cm

Dominant plant species: *Bromus tectorum*, *Sisymbrium* spp.

Vegetation type: pastureland/grassland

OTHER MEASUREMENTS

Distance to nearest perch: 33.4 m

Perch type: wood fencepost

Height of perch: 150.0 cm

Distance to nearest cultivated field: 42.0 m

Distance to nearest paved/gravel road: 47.4 m

Distance to nearest source of water: 47.4 m (puddles from irrig.)



Bureau of Land Management

Idaho State Office
3380 Americana Terrace
Boise, Idaho 83706

BLM/ID/PT-95/012+1150